

IN THE SPECIFICATION:

On page 1, line 1, change the heading **TITLE OF THE INVENTION** to delete the bold and underline as follows:

TITLE OF THE INVENTION

On page 1, line 4, change the heading **CROSS-REFERENCE TO RELATED APPLICATIONS** to delete the bold and underline as follows:

CROSS-REFERENCE TO RELATED APPLICATIONS

On page 1, line 8, change the heading **FIELD OF THE INVENTION** to delete the bold and underline as follows:

FIELD OF THE INVENTION

On page 1, line 11, change the heading **BACKGROUND OF THE INVENTION** to delete the bold and underline and center as follows:

BACKGROUND OF THE INVENTION

Please replace the third paragraph on page 1, under "Background of the Invention," with the following:

The lymphoselective toxicity of 2-chloro-2'-deoxyadenosine (Cl_dAdo, cladribine) and its potential as a chemotherapeutic agent against lymphoid neoplasms were reported by Carson et al.¹ This potent, deaminase-resistant-deaminase-resistant analogue of 2'-deoxyadenosine (dAdo) is currently the drug of choice for hairy-cell leukemia.^{2,3} It also has significant activity against chronic lymphocytic leukemia,^{4,5} indolent non-Hodgkin's lymphoma,⁶ and Waldenström's macroglobulinemia.⁷ Investigations with cladribine treatment of multiple sclerosis,⁸ systemic lupus erythematosus-associated glomerulonephritis,⁹ and other rheumatoid and immune disorders are in progress. Cladribine is a nucleoside prodrug, which is phosphorylated by deoxycytidine kinase to Cl_dAMP, and then sequentially to Cl_dADP and the active Cl_dATP.^{1a,10a} Cladribine also is a good substrate for mitochondrial 2'-deoxyguanosine

(dGuo) kinase,¹⁰ and induction of programmed cell death by direct effects on mitochondria has been implicated in its potent activity against indolent lymphoid malignancies (via apoptosis) as well as in proliferating cells.^{11,12}

Please replace the first full paragraph on page 3, with the following:

Sampath et al. have recently shown (U.S. Patent No. 6,596,858 B2) a method for making 2-chloro-2'-deoxyadenosine compounds, using 2-amino-2'-deoxyadenosine as a starting compound, but beginning with an initial diazotization/chloro-dediazoniation reaction on the unprotected nucleoside to replace the 2-amino group with a 6-chloro 2-chloro group. This method, however, creates various impurities, which requires extensive purification procedures, and results in an overall yield of only 27%.

On page 3, line 13, change the heading **SUMMARY OF THE INVENTION** to delete the bold and underline and add BRIEF at the beginning of the line as follows:

BRIEF SUMMARY OF THE INVENTION

On page 3, line 21, replace the heading **DESCRIPTION OF THE FIGURES** with the following heading:

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

On page 4, line 1, replace the heading **DESCRIPTION OF PREFERRED EMBODIMENTS OF THE INVENTION** with the following heading:

DETAILED DESCRIPTION OF THE INVENTION

Please replace the third paragraph on page 8, with the following:

Compound **7** underwent efficient diazotization/bromo-dediazoniation with TMS-Br and tert-butyl nitrite (TBN). Competing redox interactions between nitrite anion and TMS-Br precluded the use of NaNO₂. The 2-bromo-6-chloropurine nucleoside nucleoside 3^{27,37} (85%, without chromatography) was obtained as a crystalline solid with TMS-Br (9 equivalents)/TBN (20 equivalents)/CH₂Br₂/ambient temperature within 1 h.